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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,060	08/28/2006	Ralf Dunkel	CS8772BCS033031	2152

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EXAMINER	
FIERRO, ALICIA	

ART UNIT	PAPER NUMBER
1626	

NOTIFICATION DATE	DELIVERY MODE
11/16/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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rebecca.hayes@bayercropscience.com

Office Action Summary	Application No.	Applicant(s)	
	10/576,060	DUNKEL ET AL.	
	Examiner	Art Unit	
	Alicia L. Fierro	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19,20,23,24,28 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19,20,23,24,28 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 19, 20, 23, 24, 28 and 29 are currently pending in the instant application. Claim 29 remains withdrawn from consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected invention, there being no allowable generic or linking claim.

Response to Amendments and Arguments

2. Applicant's arguments and amendments filed July 14, 2009 have been fully considered and entered into the application. All objections and rejections not explicitly maintained herein are withdrawn, having been obviated by Applicant's amendments and/or arguments.

Information Disclosure Statement

3. Applicant states that consideration of references cited in the International Search Report is mandatory when they are received from the International Bureau. In the instant case, the documents were never received by either the International Bureau or the Applicant. According to MPEP 609.093:

> The examiner will consider the documents cited in the international search report in a PCT national stage application when the Form PCT/DO/EO/903 indicates that both the international search report and the copies of the documents are present in the national stage file. In such a case, the examiner should consider the documents from the international search report and indicate by a statement in the first Office action that the information has been considered. There is no requirement that the examiner list the documents on a PTO-892 form.

4. Form PCT/DO/EO/903 did not indicate that the copies of the documents were present in the national stage file.

5. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining

compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

6. The listing of references in the identified as U.S. counterparts of the documents which were not considered is not a proper information disclosure statement. See MPEP § 609.04(a) which lists all the requirements of a proper information disclosure statement which can be considered by the Examiner. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Maintained Claim Rejections – 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

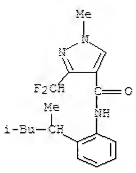
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 19, 20, 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5965774 (published October 12, 1999).

10. Please note that for the purposes of applying art to claim 28, the phrase "for controlling unwanted microorganisms" is considered to be intended use and is not limiting to the claimed invention or significant to the claim construction. See MPEP 2111.02(II). However, in determining whether or not the prior art would be capable of the intended use, as claimed, it is necessary to examine the meaning of "controlling" in claim 28. Because no specific definition was set forth for "control" in the instant specification, a definition consistent with the art has been applied. Merriam-Webster defines "control" as "to reduce the incidence or severity of especially to innocuous levels" (http://www.merriam-webster.com/dictionary/control). Thus, anything which would reduce the incidence of (i.e. kill) microorganisms would be capable of the intended use in claim 28.

11. The '774 patent discloses the compound N-[2-(1,3-dimethylbutyl)phenyl]-3-difluoromethyl-1-methylpyrazole-4-carboxamide, and also details its synthesis in Example 3, Columns 18-19, lines 56-67 and 1-2. This compound has the following

structure (produced by STN):



The '774 patent also refers to this compound as "Compound 2." Additionally, the reference discloses that the carboxanilide derivatives of the invention exhibit "a disease control effect against *Botrytis cinerea,* Powdery mildew, *Pyricularia oryzae* of the rice plant and other various plant diseases...has activity against strains that are resistant to conventional chemicals, is safe for crops, and thus is useful as a plant disease control agent" (see Abstract). Formulation Example 2 (column 23, lines 7-15) discloses the formation of a composition of Compound 2 which includes the compound as an active ingredient, along with 70 parts by weight of kaolin, 18 parts by weight of white carbon, and 2 parts by weight of calcium alkylbenzenesulfonate, which is a known surfactant. Additionally, compositions of Compound 2 were tested against many different fungal plant pathogens, including *Sphaerotheca fuliginea* and *Venturia inaequalis* (see Table 1, column 25), *Puccinia recondita* (see Table 2, column 27), *Rhizoctonia solani* (see Table 3, column 27), and *Alternaria mali* (see Table 4, column 28) and was found to be effective in controlling each of these microorganisms. The compound taught by the '774 patent is a *prima facie* obvious variant of the elected species. The difference between the compound taught by the '774 patent and the instant claims is the methyl substitution of

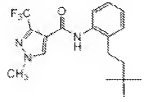
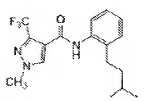
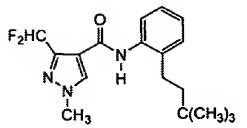
the first carbon in the alkyl chain and the presence of H rather than one of the methyl group substitutions on the terminal carbon of the alkyl chain.

Hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C_1 of the alkyl chain and replacing the hydrogen with a methyl at the C_3 position of the alkyl chain is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would have microbicidal activity on species such as those tested in the '774 patent). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a methyl group and a hydrogen on the alkyl chain of the compound taught by the '774 patent.

12. Applicants argue that in the rejection, the substitution of H for methyl in the terminal alkyl chain produces the less bulky isopropyl group of the prior art compounds, which "does not lead to a comfortable level of biological predictability." In an attempt to provide evidence of this assertion, Applicants presented the Declarations of Dr. Ulrike Wachendorff-Neumann and Dr. Peter Dahmen.

13. In the Wachendorff-Neuman and Dahmen declarations, one specific compound of the instant invention was compared to one specific compound of the prior art

( vs.  , respectively). Firstly, the Examiner would like to point out that the rejection of the claims was made over the elected species and the corresponding compound in the prior art. Specifically, the elected species was  . It should be noted that the evidence provided is not commensurate in scope with the examined subject matter, namely the elected species, since the compounds differ in the substituents on the pyrazole ring. As such, it is possible that the difference in activity is related to the difference in the trifluoromethyl vs. difluoromethyl group on the pyrazole ring. However, even if the fact that the Declarations fail to properly compare the prior art compound over which the rejection was originally made with its corresponding compound in the instant claims is overlooked, the data provided still does not support a finding of unpredictability relative to the hydrogen/methyl substitution at the terminal alkyl group. The Declarations each show data on the efficacy of the two comparative compounds in treating four species of fungus and in each of the four cases, the efficacy of the inventive compound is higher than that of the comparison compound in the prior art. Applicants submit that those skilled in the art would not have expected these differences. The Examiner respectfully disagrees with this conclusion. It is evident from the data presented in each of the

Declarations that the comparative prior art compounds were still effective in treating each of the four types of fungus that were tested.

14. Regarding the rationale and motivation to modify the prior art, MPEP 2144 states the following:

> The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law.

Please reference *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596; *In re Jones*, 958 F.2d 347, 21USPQ2d 1941. Additionally, MPEP 2144.08, II.A.4(c) states the following:

> Consider any teachings of a "typical," "preferred," or "optimum" species or subgenus within the disclosed genus. If such a species or subgenus is structurally similar to that claimed, its disclosure may **>provide a reason for< one of ordinary skill in the art to choose the claimed species or subgenus from the genus, based on the reasonable expectation that structurally similar species usually have similar properties. See, e.g., *Dillon*, 919 F.2d at 693, 696, 16 USPQ2d at 1901, 1904. See also *Deuel*, 51 F.3d at 1558, 34 USPQ2d at 1214 ("Structural relationships may provide the requisite motivation or suggestion to modify known compounds to obtain new compounds. For example, a prior art compound may suggest its homologs because homologs often have similar properties and therefore chemists of ordinary skill would ordinarily contemplate making them to try to obtain compounds with improved properties.").

As such, the structural relationship between compounds with a H/CH3 substitution would provide the requisite motivation to modify the known compounds to obtain the new compounds because these types of substitutions are "ordinarily contemplated" by those of ordinary skill in the art when attempting to synthesize compounds with improved

properties for pharmaceutical use. Further, the fact that the instant inventive compounds have a higher efficacy in treating the four types of fungi presented in the Declarations does not amount to a finding of unpredictability or unexpected results. As evidenced by the MPEP passage cited above, the expectation when making slight structural modifications of known compounds is that some of those modifications will result in improved properties. Therefore, the fact that the inventive compounds with the methyl substitution (versus the unsubstituted prior art analogs) have an improved ability to treat four types of phytopathogenic fungi is not unexpected because the overall utility of the compounds is still exactly the same as that taught in the prior art and optimization of those properties by making simple changes such as H/CH3 substitution is well within the purview of a skilled artisan. Finally, it should not be overlooked that the instant application discloses that the R3 position can be not only alkyl, but also hydrogen. Hydrogen was removed from the R3 definition in the most recent amendment; however, the disclosure that this particular position could be either H or methyl further supports the conclusion that to a person of ordinary skill in the art, H and CH3 are full equivalents as substituents in the instantly claimed isopentylcarboxanilide compounds and the fact that one of the compounds has better efficacy than the other would not be unexpected in light of the evidence provided above. Therefore, the original finding of *prima facie* obviousness between the Compound 2 of the '774 patent and the instantly elected species is determined to be valid and is maintained.

Maintained Double Patenting Rejections

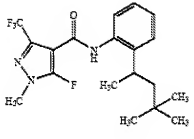
15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

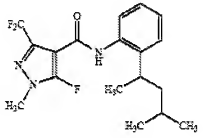
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 and 9 of U.S. Patent No. 7358214. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons below.

The recited claims of the '214 patent are drawn to various generic compounds of Formula I and a composition thereof with the addition of extenders and/or surfactants. Additionally, several preferred embodiments in the specification of the '214 patent (see, for example, Compounds 1 and 2) recite obvious variants of compounds in the genus of the instant claims.



COMPOUND 1



COMPOUND 2

The compound taught by the '214 patent recited as Compound 2 fits into the instant genus as a compound wherein L is L-1, A is A1, R3 is H, R10 is C1 haloalkyl having 3 fluorines, R11 is halogen (F), and R12 is C1 alkyl (methyl). Compound 1 has the same substitutions except that R3 in the instant formula (I) is C1 alkyl (methyl). The difference between the instantly claimed genus and the compounds claimed in the '214 patent is a methyl substitution at the C1 position of the alkyl chain. Additionally, claim 9 of the '214 patent is drawn to a composition for controlling microorganisms comprising one or more compounds of the invention along with the addition of extenders and/or surfactants. In the '214 patent the terms "extenders" and "surfactants" are defined

identically as in the instant application, so claim 9 of the '214 patent reads on instant claim 28.

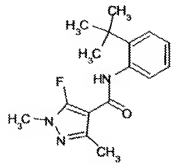
Hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C_1 of the alkyl chain is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would be useful in the control of microorganism species). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a hydrogen to a methyl on the alkyl chain of the compound claimed in the '214 patent.

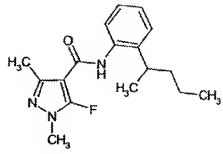
17. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22-28, 31-33, 35 and 38 of copending U.S. Application No. 10/484,108. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons below.

The recited claims of the '108 application are drawn to various generic compounds of Formula (I) and a composition thereof with the addition of extenders and/or surfactants. Additionally, several preferred embodiments in the specification of

the '108 application (see, for example, Compounds I-5 and I-17) recite obvious variants of compounds in the genus of the instant claims.



COMPOUND I-5



COMPOUND I-17

The compound taught by the '108 application recited as Compound I-5 fits into the instant genus as a compound wherein L is L-1, A is A1, R_3 is CH_3, R_{10} is C_1 alkyl (methyl), R_{11} is halogen (F), and R_{12} is C_1 alkyl (methyl). Compound I-17 has the same substitutions except that R3 in the instant formula (I) is H. The difference between the instantly claimed genus and the compounds claimed in the '108 application is that compound I-5 is a homolog of compounds in the instantly claimed genus (i.e. they differ in that the instant compounds have the successive addition of the same chemical group, namely CH_2, in the alkyl chain). In Compound I-17 there is a methyl substitution at the C_1 position of the alkyl chain and an H substitution at the C_3 position on the alkyl chain.

Concerning compound I-5, one of ordinary skill in the art would have been motivated, at the time of the invention, to make the modification of alkyl chain on the phenyl ring to arrive at the instantly elected species and composition thereof with a reasonable expectation of obtaining a molecule with the same activity as that in the '108 application. To those of ordinary skill in the chemical art, one homologue is not such an advance over adjacent members of the series as requires invention because chemists knowing properties of one member of a series would, in general, know what to expect in

adjacent members. *In re Henze*, 85 U.S.P.Q. 261 (1950). Concerning compound I-17, hydrogen and methyl substitutions are known in the art and are deemed to be obvious variants of each other. *In re Wood*, 199 USPQ 137. Thus, replacing the methyl with a hydrogen on the C_1 of the alkyl chain and replacing the hydrogen with a methyl at the C_3 position of the alkyl chain is an obvious variation of the known compound.

The motivation to make the instantly examined species derives from the expectation that structurally similar compounds would possess similar biochemical activity (i.e. they would be useful in the control of microorganism species). Thus, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to make the instantly examined species by modifying a hydrogen to a methyl on the alkyl chain of the compound claimed in the '108 application.

In the same manner as the above obviousness-type double patenting rejections were made, the following rejections also apply to the claims in the instant application:

18. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-17 and 20 of copending U.S. Application No. 10/576,050. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH_3 substitutions.

19. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-15 and 17 of copending U.S. Application No. 10/576,153. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH3 substitution.

20. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4 of copending U.S. Application No. 10/583,312. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH_3 substitution.

21. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-12 and 14 of copending U.S. Application No. 10/557,083. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH3 substitution. Additionally, the '083 application requires that the instant R_{10} group be I. Although the instant claims contain a proviso that R_{10} does not represent iodine if R_{11} represents hydrogen, R_{10} can still be any other halogen. To those skilled in the chemical art,

compounds are not patentably distinct when the difference between the claimed compounds and conflicting claims is a difference of one halogen vs. another halogen (such as I vs. Cl). Since both moieties are halogens, the claimed compounds are an analogues or isologues of those in the conflicting claims of the '083 application. *Ex parte Wiseman*, 98 USPQ 277 (1953). The instantly claimed compounds would have been *prima facie* obvious to one skilled in the art at the time the invention was made because one skilled in the art would have been motivated to prepare analogues of the compounds claimed in the '083 application with the expectation of obtaining compounds with similar properties (namely microbicidal properties).

22. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 and 4 of copending U.S. Application No. 10/597,723. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH_3 substitutions. Additionally, the '723 application requires that the R_2 group is substituted by a halogen. In the case where the halogen is fluorine, the compounds of the '723 application are deemed to be obvious variants of the instantly claimed compounds. H and F are known to be bioisosteric substitutions, which are well known in the art. See Patani et al., *Chem Rev.*, 1996, 96, 3147-76, especially page 3149. One of ordinary skill in the chemical art would have had *prima facie* obvious motivation at the time the invention was made to make the instantly claimed compounds because of the expectation that structurally

similar, isosteric compounds would possess similar activity (i.e. they would useful as microbicides).

23. Claims 19-21, 23-24, 26 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-22, 24-28 and 30 of copending U.S. Application No. 10/576,243. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons applied in the above rejections based on H/CH_3 substitutions and H/F isosteric substitution.

Conclusion

24. No claims are allowed

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia L. Fierro whose telephone number is (571)270-7683. The examiner can normally be reached on Monday - Thursday 6:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

/Alicia L. Fierro/
Examiner, Art Unit 1626

/REI-TSANG SHIAO /
Primary Examiner, Art Unit 1628